

treatment failure. Times to treatment failure, during a specified observation period, were compared using an adjusted Cox model. Drug consumption, clinic visits and glaucoma procedures during the period were subjected to a cost minimization analysis, adopting the NHS perspective. **Results:** Out of 56,612 patients elicited, 39,808 received at least one topical prescription for glaucoma. Amongst these, 1164 were prescribed a β -blocker+alpha-2 agonist and 5581 a β -blocker+CAI, in place of failed treatments for glaucoma. No significant demographic differences were observed between groups. The mean age was 68.1 years and 51.9% were female. By the end of one year 69.7% of patients failed to respond to β -blocker+alpha-2 as did 59.5% to β -blocker+CAI ($p < 0.001$). The hazard ratio (0.818) for failure was less for β -blocker+CAI ($p < 0.001$) than β -blocker+alpha-2, after adjusting on age, gender, and comorbidities. Adjusted costs of β -blocker+alpha-2 regimens were estimated at £357 p.a. and were not statistically different ($p = 0.61$) from β -blocker+CAI regimens (£348 p.a.). **CONCLUSION:** According to UK-GPRD information, beta-blocker + CAI is more efficient than beta-blocker + alpha-2 in replacing failed treatments for glaucoma. Patients continued longer with a β -blocker+CAI treatment than beta-blocker + alpha-2, at a similar cost.

PEY9

EFFECTIVENESS AND COSTS OF TRAVATAN VS XALACOM AS FIRST-LINE TREATMENT FOR GLAUCOMA: AN ANALYSIS PERFORMED ON THE UK GENERAL PRACTITIONER RESEARCH DATABASE

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OBJECTIVES: To compare the effectiveness and associated costs of Travatan (prostaglandin) and Xalacom (prostaglandin + α -blocker) as first-line treatments for glaucoma, according to the UK General Practitioner Research Database (UK-GPRD). **METHODS:** Patients diagnosed with ocular hypertension or glaucoma treated with a topical treatment, surgery or by laser were identified. Patients confirmed to have been prescribed first line Travatan or Xalacom monotherapy were selected. Treatment failure was defined as a prescription change (adding or removing a topical treatment). Time to treatment failure was compared using an adjusted Cox model. Drugs, visits and glaucoma procedures consumed during a specified one-year period were entered into a cost minimization analysis, viewed from a NHS perspective. **Results:** 56,612 patients were identified and 39,808 had received at least one topical prescription for glaucoma; 176 received Xalacom and 639 got Travatan as first-line treatments for glaucoma. No significant difference was found between the characteristics of the two patient groups. Patients were 70.2 years old at diagnosis, on average, and 48.2% were male. At one year, 35.8% of the patients failed with Xalacom, and 27.1% failed with Travatan ($p = 0.024$). The hazard ratio for treatment failure was 0.749 and less with Travatan ($p = 0.04$) than with Xalacom, after adjusting for age, gender, and comorbidities. Xalacom regimens were statistically ($p < 0.001$) more costly (£328 p.a.) than Travatan regimens (£216 p.a.). **CONCLUSION:** According to UK-GPRD information, Travatan dominated Xalacom as first-line treatment for glaucoma patients. Patients remained under Travatan treatment longer and at a lower cost.

COST OF BLINDNESS IN THE CZECH REPUBLIC

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OBJECTIVES: To determine the cost of blindness in the Czech Republic. **METHODS:** Determination of cost is based on the search of public database in 2006. Cost are calculated from the state perspective, cost from the private sector are not included (foundation, donation etc.). Analysis include direct cost: supportive equipment, counseling, home care, co-morbidity treatment, rehabilitation, retraining, social home for blind people, social benefits—allowance, community care and indirect cost: productivity lost which was calculated via human capital method. Three cost categories were selected to describe cost of blindness: 1.) Blind in productive age, 2.) Blind in retirement living at home, 3.) Blind in retirement placed in social home for blind people. Costs in each group were divided in cost first year and following years. **RESULTS:** The cost is highest first year in group 1) blind in productive age and reach 733,000 CZK (app. 34,900 USD) per year. Following years is the cost lower 522,000 CZK (app. 24,900 USD) in this group. The second group which includes blind people placed at home utilize 408,000 CZK (app. 19,400 USD) during first year and 197,000 CZK following years (9400 USD). The cost of third group which includes patients living at social home was 324,000 CZK (15,400 USD) both first and following years. **CONCLUSION:** Cost of blindness from ranges from 197,000 CZK to 733,000 CZK (app. 9400 to 34,900 USD) per year in the Czech Republic. Cost of blindness represents a substantial burden for Czech state and society.

PEY11

COST OF STANDARD CARE TREATMENT IN PATIENTS WITH PROGRESSION OF PRIMARY OPEN ANGLE GLAUCOMA

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OBJECTIVES: Develop a health economic model to measure the standard of care costs associated with progression of primary open angle glaucoma. **METHODS:** We used Monte Carlo techniques to model the cost of a simulated cohort of 600 patients with Mean Deviation (MD) score progression over four years. MD scores were used to estimate resource utilization for the cohort using regression equations from an analysis of the relationship between resources and MD score in the worst eye from a U.S. chart review of glaucoma patients (N = 161, mean age 66.3, minimum follow-up of four years). Both medical (number of office visits, visual field exams, trabeculoplasties and trabeculectomies) and pharmacy resources (number of glaucoma medications) were included in the model. Unit costs were applied to the resource utilization estimates. MD scores were also used to predict utility scores based on a regression analysis of utility scores among glaucoma patients; the quality-adjusted-life years (QALYs) over four years was modeled. **RESULTS:** The four-year cost for the cohort was \$3957 per patient (\$598 in pharmacy costs and \$3359 in medical costs) with 2.96 QALYs accumulated over 4 years. **CONCLUSION:** Glaucoma progression as evidenced by worsening MD scores is associated with a loss in quality of life and substantial costs over four years of follow-up. Advances in understanding the economic burden of glaucoma progression may help to guide strategies for preventing and delaying onset of this disease and lead to cost savings by slowing disease progression.